

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A three-dimensional image display device, comprising:

a display panel where a plurality of pixel sections, which include pixels displaying an image for a right eye and pixels displaying an image for a left eye, are arrayed in matrix form, the pixels displaying said image for the right eye and the pixels displaying image for the left eye being periodically arranged in a horizontal direction; and

an optical unit that emits light emitted from the pixels displaying said image for the right eye and light emitted from the pixels displaying said image for the left eye in directions different from each other,

wherein a three-dimensional visible range is defined as, when a midpoint between a viewer's right eye and left eye is positioned in said three-dimensional visible range, the light emitted from the pixels displaying said image for the right eye is made incident to said right eye and the light emitted from the pixels displaying said image for the left eye is made incident to said left eye, and

wherein, a definition of the three-dimensional image in the horizontal direction is no less than the resolution by the eyesight of a viewer whose midpoint between the right eye and the left eye is positioned in said three-dimensional visible range, thereby preventing a lack of feature points.~~when a distance between said display panel and a point within said three dimensional visible range, the point, being most distant from the display panel in a normal direction, is set to D (mm) and a definition of said pixel sections in a first direction perpendicular to said horizontal~~

~~direction and the vertical direction perpendicular to said horizontal direction and parallel to the surface of said display panel is set to X (dpi), said distance D and said definition X satisfy the expression:~~

$$X \geq \frac{25.4}{D * 0.000291}$$

2. (Previously Presented) The three-dimensional image display device according to Claim 1, wherein a definition of said pixel sections in the vertical direction~~a second direction, crossing the first direction and parallel to the surface of said display panel satisfies the expression for the definition in claim 1 is no less than the resolution by the eyesight of a viewer whose midpoint between the right eye and the left eye is positioned in said three-dimensional visible range, thereby preventing the lack of feature points.~~

3. (Original) The three-dimensional image display device according to Claim 1, wherein said display panel is a liquid crystal display panel.

4. (Previously Presented) The three-dimensional image display device according to Claim 1, wherein said optical unit is a parallax barrier wherein a plurality of slits are periodically arranged in said horizontal direction.

5. (Previously Presented) The three-dimensional image display device according to Claim 1, wherein said optical unit is a lenticular lens that is arranged on the viewer side of said display panel, provided with a plurality of cylindrical lenses extended in a vertical direction and periodically arranged in said horizontal direction.

6. - 10. (canceled)

11. (Original) The three-dimensional image display device according to Claim 1, wherein said device displays a three-dimensional moving picture.

12. (Original) The three-dimensional image display device according to Claim 1, wherein said device is mounted in a portable device.

13. (Original) The three-dimensional image display device according to Claim 12, wherein said portable device is any one of a cellular phone, a portable terminal, a PDA, a game device, a digital camera, and a digital video camera.

14. (Currently Amended) A three-dimensional image display method, wherein:
arraying a plurality of pixel sections in matrix form on a display panel, in which one pixel included in each pixel section displays an image for a right eye and another pixel displays an image for a left eye, the pixels displaying said image for the right eye and the pixels displaying said image for the left eye being periodically arranged in a horizontal direction;

controlling light emitted from said pixel sections with an optical unit such that light emitted from the pixels displaying said image for the right eye and light emitted from the pixels displaying said image for the left eye, are in directions different from each other, and

positioning a midpoint between the right eye and the left eye in a three-dimensional visible range, such that the light emitted from the pixels displaying said image for the right eye is

made incident to said right eye and the light emitted from the pixels displaying said image for the left eye is made incident to said left eye,

wherein a definition of the three-dimensional image in the horizontal direction is no less than the resolution by the eyesight of a viewer whose midpoint between the right eye and the left eye is positioned in said three-dimensional visible range, thereby preventing a lack of feature point.~~when a distance between said midpoint and said display panel is set to OD (mm) and a definition of said pixel sections, in a first direction out of a horizontal direction and a vertical direction perpendicular to said horizontal direction and parallel to the surface of said display panel is set to X (dpi), said distance, OD, and said definition, X, satisfy the following expression:~~

$$X \geq \frac{25.4}{OD * 0.000291}$$

15. (Previously Presented) The three-dimensional image display method according to Claim 14, wherein a definition of said pixel sections in the vertical direction~~a second direction, is no less than the resolution by the eyesight of a viewer whose midpoint between the right eye and the left eye is positioned in said three-dimensional visible range, thereby preventing the lack of feature points~~~~crossing to the first direction and parallel to the surface of said display panel~~ satisfies the expression for the definition in claim 14.

16. - 24. (Canceled)

25. (new): The three-dimensional image display device according to claim 1, when D(mm) is defined as the distance between said display panel and a point which is most distant

from said display panel within said three-dimensional visible range, a definition X (dpi) of said pixel sections in said horizontal direction satisfies the expression of:

$$X \geq 25.4 / D * \tan (1^\circ)$$

26. (new): The three-dimensional image display device according to claim 2, when D(mm) is defined as the distance between said display panel and a point which is most distant from said display panel within said three-dimensional visible range, a definition Y (dpi) of said pixel sections in said vertical direction satisfies the expression of:

$$Y \geq 25.4 / D * \tan (1^\circ)$$

27. (new): The three-dimensional image display device according to claim 14, when D(mm) is defined as the distance between said display panel and a point which is most distant from said display panel within said three-dimensional visible range, a definition X (dpi) of said pixel sections in said horizontal direction satisfies the expression of:

$$X \geq 25.4 / D * \tan (1^\circ)$$

28. (new): The three-dimensional image display device according to claim 15 when D(mm) is defined as the distance between said display panel and a point which is most distant from said display panel within said three-dimensional visible range, a definition Y (dpi) of said pixel sections in said vertical direction satisfies the expression of:

$$Y \geq 25.4 / D * \tan (1^\circ)$$